time period in which at least one power-indicative signal characteristic can change." For the reasons specified below, Applicants believe that the Examiner is incorrect on this point.

The present invention as set forth in each of independent claims 1 and 8 calls for determining the power level of a forward-link signal in a wireless system for a measurement interval using power-indicative signal characteristics, where the measurement interval has "a duration smaller than or equal to the time period in which at least one power-indicative signal characteristic can change." Applicants have indicated in their specification at, for example, page 7, lines 16-23, a number of advantages associated with the claimed power level determination methods:

> Determining the power level of at least one forward-link signal of a base station for a measurement interval that has a duration smaller than or equal to the time period in which at least one power-indicative signal characteristic can change allows the base station to more accurately determine the power level of a signal set. This in turn allows the base station to more accurately determine any measurement, such as the pilot fraction, or condition, such as the overload condition, that requires knowledge of the power level of the signal set. For example, this allows the base station to better detect overload conditions, thus protecting the amplifier.

As indicated above, the Examiner argues in the outstanding final Office Action that Weaver discloses the power level determination methods as set forth in independent claims 1 and 8. More particularly, the Examiner states that Weaver discloses the claim limitations regarding "the measurement interval having a duration smaller than or equal to the time period in which at least one power-indicative signal characteristic can change" (Office Action, page 3, section 4, lines 6-8). In support of his argument, the Examiner states that the measurement interval in Weaver "is usually a full rate frame" (Office Action, page 3, section 4, line 10). Applicants respectfully disagree. As will be described in greater detail below, it is believed that the Examiner is mischaracterizing the teachings of the Weaver reference with regard to at least the measurement interval duration limitations of independent claims 1 and 8.

As Applicants noted in their previous response, the Weaver reference discloses an apparatus and method for controlling a final transmit power level y of a base station, through the use of a

transmit power tracking loop shown generally in FIG. 2 of Weaver. The final transmit power level y is measured by a transmit power detector 40 in the FIG. 2 transmit power tracking loop. The FIG. 2 transmit power loop further includes a discrete time H_3 filter 22 which receives as a first input a desired output power level y_d, and receives as a second input the final transmit power level y from the transmit power detector 40. The H_3 filter 22 filters the two inputs to generate a transmit power tracking gain y' which is input to a variable gain block 24. The variable gain block 24 receives as an input a raw radio frequency transmit signal w and produces a final output signal w_o. The transmit power detector 40 measures the power of the final output signal w_o to produce the final transmit power level y which is supplied to the H_3 filter 22. FIG. 3 of Weaver shows channel element processors 36*a*-36*i* and base station transceiver system controller (BTSC) 37 that are collectively used to generate the desired output power level y_d that is supplied as the first input to the H_3 filter 22.

The Examiner argues that the above-described power measurement arrangement, along with other related drawings and corresponding text in the Weaver reference, anticipates the measurement interval duration limitations of independent claims 1 and 8. However, this assertion is inconsistent with explicit teachings from the Weaver reference. For example, the Weaver reference in FIG. 4 indicates that within a given one of the channel element processors 36*a*-36*i*, gain and rate information are sampled by a first sampler 42, the resulting samples are applied to a calculator 43, the output of the calculator 43 is applied to an H_1 filter 44, the output of the H_1 filter 44 is sampled in a second sampler 45, and the resulting samples are time stamped before being delivered to the BTSC 37 for further processing. The Weaver reference then explicitly states as follows regarding the above-noted FIG. 4 elements, in column 11, lines 37-51, with emphasis supplied:

> The basic purpose of sampler 42, H_1 filter 44 and second sampler 45 is to reduce the amount of messaging from each channel element processor 36*a*-36*i*. Each channel element processor 36*a*-36*i* produces a certain number of messages that provide a variety of system information. If a expected power message was sent from every channel element processor 36*a*-36*i* for each frame in addition to the other system information messages, the messaging would overburden the system. To reduce the number of messages, each channel element processor 36*a*-36*i* performs a sampling and averaging function of the expected power by

summing over a group of frames as set by the time constant ψ_1 of H_1 filter 44 and the sample rates of sampler 42 and second sampler 45. The filtered expected power information can be passed at a relatively slower rate (1/(N*M)) than once per frame.

It is therefore apparent that if the power measurement relied upon by the Examiner is the determination of the desired output power level y_d, this determination does not occur within the claimed measurement interval duration, i.e., within a duration smaller than or equal to the time period in which at least one power-indicative signal characteristic can change, since the power-indicative signal characteristics can change from frame to frame. Moreover, if the power measurement relied upon by the Examiner is the determination of the final transmit power level y, this determination also does not occur within the claimed measurement interval duration. This is apparent from, e.g., column 7, line 63 to column 8, line 3 and column 9, lines 49-54 of Weaver, which collectively disclose that the final transmit power level y need only be determined at a single point in time within a given multi-frame measurement interval associated with determination of the desired output power level y_d.

Applicants respectfully submit that the Examiner is thus incorrect in his above-noted assertion that in Weaver the measurement interval "is usually a full rate frame." The explicit teachings of Weaver, which clearly contemplate a measurement interval duration comprising multiple frames, are directly contrary to the Examiner's assertion. The arrangements of Weaver relied on by the Examiner are thus of a conventional type similar to that described by Applicants at page 1, line 10 to page 6, line 7, of the specification, and will suffer from the corresponding problems described by Applicants therein. As indicated above, the present invention as claimed advantageously overcomes these problems of Weaver and other conventional arrangements.

With regard to the portion of the Weaver reference in column 10, lines 5-27, as cited on page 2 of the final Office Action, it is believed that this portion also fails to meet the measurement interval duration limitations of independent claims 1 and 8. For example, the cited portion states as follows with regard to calculation of expected power:

> Thus in calculating the expected power the ratio of the number of power control symbols within a frame and the ratio of the number of data symbols to the total number of symbols within a frame is used to scale the corresponding energy calculations.

Applicants note that this does not disclose or suggest a measurement interval having a duration smaller than or equal to the time period in which at least one power-indicative signal characteristic can change, as set forth in claims 1 and 8. Moreover, there are specific teachings away from the limitation in question as it relates to the cited column 10, lines 5-27, portion of Weaver. For example, Weaver indicates that "the Power Control Subchannel Data Rate, r_s, is always full rate (i.e., is always equal to one) for the traffic channel" (Weaver, column 10, lines 12-15), and further states as follows, in column 10, lines 28-34, with emphasis supplied:

> The pilot channel data rate and gain are typically a fixed constant system wide. Thus Channel Gain, G_i, and the Channel Data Rate, r_i, are fixed constants for every frame. The sync and paging channels data rates are typically full rate at all times and the gain is also a system wide constant. For the pilot, paging, and sync channels the number of power control information symbols per frame, s_{pc}, is a zero.

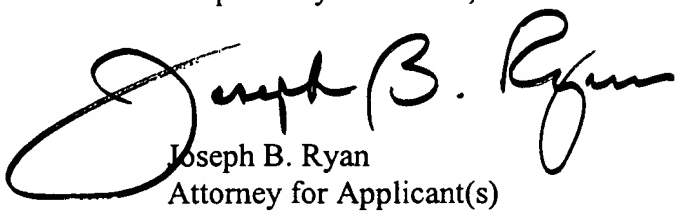
Applicants therefore believe that the portions of Weaver relied upon by the Examiner fail to anticipate or even suggest the limitations in question.

Inasmuch as the Weaver reference fails to disclose or suggest at least the measurement interval duration limitations of independent claims 1 and 8, the rejection of these claims under §102(b) is believed to be improper and the rejection should be withdrawn.

Dependent claims 2-7 and 9-22 are believed allowable for at least the reasons identified above with regard to their corresponding independent claims. Moreover, one or more of these claims are believed to include separately patentable subject matter clearly not anticipated by the Weaver reference.

In view of the above, Applicants believe that claims 1-22 are in condition for allowance, and respectfully request the withdrawal of the §102(b) rejection.

Respectfully submitted,



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